

Applicant: John K. Smith
Application Serial No.: 09/660,078
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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) An endovascular prosthesis comprising:
 - a. an endovascular member having a tubular structure comprising one of a hook structure and a loop structure;
 - b. a patch for placement against said endovascular member, said patch having a structure comprising the other of said hook structure and said loop structure;wherein said hook structure and said loop structure are matingly engageable so as to maintain said patch in substantially fluid tight engagement with said endovascular member.
2. (original) The endovascular prosthesis of claim 1, wherein said endovascular member is selected from the group consisting of grafts, stents and stent-grafts.
3. (original) The endovascular prosthesis of claim 1, wherein said hook and loop structures are comprised of textile materials.
4. (original) The endovascular prosthesis of claim 1, wherein said hook and loop structures are selected from the group consisting of polypropylene, polyethylene terephthalate, polyurethane, a copolyester elastomer, and nylon.
5. (original) A method of repairing a damaged area of an endovascular prosthesis having a hook or loop structure and which is positioned within a body lumen, comprising the step of:

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attaching a patch to an endovascular member, wherein said patch has a hook or loop structure cooperative with a hook or loop structure of said endovascular member for maintaining said patch in substantially fluid tight communication with said endovascular member.

6. (original) The method of claim 5, further comprising the step of delivering said patch to said endovascular member through a body lumen containing said endovascular member.
7. (original) The method of claim 5, wherein said patch comprises one of a hook structure and a loop structure and said endovascular member comprises the other of said hook structure and said loop structure.
8. (original) The method of claim 5, wherein said attaching step occurs *in situ*.
9. (original) The method of claim 5, wherein said attaching step is effected by expanding a balloon affixed to a catheter to cause said hook or loop structure of said patch to engage the other of said hook or loop structure of said endovascular member.
10. (original) The method of claim 6, wherein said delivery step is effected by use of a catheter.
11. (original) The method of claim 6, wherein said delivery step is effected by use of a balloon catheter.
12. (currently amended) A multi-component endovascular prosthesis comprising:

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a. a first prosthetic component, said first prosthetic component having a tubular structure comprising one of a hook structure and a loop structure;

b. a second prosthetic component, said second endovascular component having a tubular structure comprising the other of said hook structure and said loop structure;

wherein said hook structure and said loop structure are matingly engageable so as to maintain said first prosthetic component in substantially fluid tight engagement with said second prosthetic component.

13. (original) The multi-component endovascular prosthesis of claim 12, wherein said hook and loop structures are comprised of textile materials.

14. (original) The multi-component endovascular prosthesis of claim 12, wherein said hook and loop structures are comprised of a material selected from the group consisting of polypropylene, polyethylene teraphthalate, polyurethane, a copolyester elastomer, and nylon.

15. (original) A bifurcated endovascular prosthesis comprising:

a. a main prosthetic component, said main prosthetic component having a structure comprising one of a hook structure and a loop structure;

b. a branch prosthetic component, said branch endovascular component having a structure comprising the other of said hook structure and said loop structure;

wherein said hook structure and said loop structure are matingly engageable so as to maintain said main prosthetic component in substantially fluid tight engagement with said branch prosthetic component.

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16. (original) The bifurcated endovascular prosthesis of claim 15, wherein said hook and loop structures are comprised of textile materials.
17. (original) The bifurcated endovascular prosthesis of claim 15, wherein said hook and loop structures are comprised of a material selected from the group consisting of polypropylene, polyethylene terephthalate, polyurethane, a copolyester elastomer and nylon.
18. (currently amended) A method for the assembly of an endovascular prosthesis which is implantable within a body lumen, comprising the steps of:
 - a) providing a first tubular prosthetic component having one of a hook or loop structure;
 - b) providing a second tubular prosthetic component having the other of said hook or loop structure;
 - c) engaging said hook structure or said loop structure of said first prosthetic component with the other of said hook structure or said loop structure of said second prosthetic component so as to maintain said first prosthetic component in substantially fluid tight engagement with said second prosthetic component.
19. (original) The method of claim 18, wherein said engaging step occurs *in situ*.
20. (original) The method of claim 18, wherein said engaging step is effected by expanding a balloon affixed to a catheter to cause said hook or loop structure of said first prosthetic component to engage the other of said hook or loop structure of said second prosthetic component.

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21. (original) The method of claim 18, wherein said endovascular prosthesis is useful for the treatment of aneurysms.
22. (original) The method of claim 21, wherein said aneurysms are abdominal aortic aneurysms.
23. (original) A method for the assembly of a bifurcated endovascular prosthesis which is implantable within a body lumen, comprising the step of:
 - a) providing a main prosthetic component having one of a hook or loop structure;
 - b) providing a branch prosthetic component having the other of said hook or loop structure;
 - c) engaging said hook structure or said loop structure of said main prosthetic component with the other of said hook structure or said loop structure of said branch prosthetic component so as to maintain said main prosthetic component in substantially fluid tight engagement with said branch prosthetic component.
24. (original) The method of claim 23, wherein said engaging step occurs *in situ*.
25. (original) The method of claim 23, wherein said engaging step is effected by expanding a balloon affixed to a catheter to cause said hook or loop structure of said main prosthetic component to engage the other of said hook or loop structure of said branch prosthetic component.
26. (original) The method of claim 23, wherein said bifurcated endovascular prosthetic device is useful for the treatment of aneurysms.

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27. (original) The method of claim 26, wherein said aneurysms are abdominal aortic aneurysms.